**Happy Cat™ Veterinary Data Sheet**

*Happy Cat™* is part of an integrated approach to the treatment and prevention of feline stress-related behaviours and diseases, and to the restoration of wellbeing.

### Ingredients

*Happy Cat™* contains 70g Radix Valeriana officinalis – Valerian rhizomes, roots, stolons.

### Phytochemistry

Research on the single ingredient of *Happy Cat™* has tended to focus on its relaxant or sedative action. Phytochemical constituents currently regarded as most important in clinical action are:

- Monoterpenes (borneol) and sesquiterpenes (valerenic acid, valeranone, kessil glycol) contained in the volatile oil fraction.
- Valepotriates including dihydrovaltrates, valtrates and iaovalerenic acid.
- Baldrinals (valepotriate degradation products), including homobaldrinal and vatralox.
- Lignans, including 1-hydroxypinoresinol.
- Amino acids, including γ-aminobutyric acid (GABA), glutamine, tyrosine and arginine.

### Pharmacology

Research indicates that the active ingredient in *Happy Cat™* promotes an increase in the activity of GABA (γ-aminobutyric acid). GABA is the primary inhibitory neurotransmitter in the CNS. *Happy Cat™* may therefore enhance the biochemical and behavioural effects of GABA.

#### Fig 1 – Possible sites of action of *Happy Cat™*.

*Valeriana officinalis* root has been shown to: 1. Itself contain GABA, 2. Activate glutamate decarboxylase (GAD) – an enzyme involved in GABA synthesis in presynaptic nerves, 3. Inhibit GABA reuptake in glial cells and neurons, 4. Inhibit GABA transaminase – an enzyme involved in GABA catabolism, 5. Bind to GABA_A receptors. These effects lead to a potentiation of the action of GABA and an increased inhibition of CNS response.

### Clinical Actions

*Happy Cat™* offers the following benefits to felines:

- **Feline Attractant** – naturally attractive to cats allowing easy treatment and maximal compliance.
- **Anxiolytic** - helps to alleviate anxiety, nervous tension. Facilitates calm.
- **Sedative** – assists in reducing hyper-excitability and hyper-activity. Facilitates rest.
- **Muscle Relaxant** - helps relieve skeletal and smooth muscle tension and spasm. Promotes relaxation.
- **Anticonvulsive** – helps calm seizure activity. Promotes balance.
- **Hypotensiv**e - supports a lowering of blood pressure and a relaxing of the myocard.
- **Analgesic** – assists in relieving pain associated with physical and/or mental tension and strain.

### Veterinary Indications

It is always important to identify the underlying reason for the experience of stress, so as to discover a positive solution for it where possible.

#### Mood disorders

- Anxious, nervous, fearful
- Aggressive, agitated, irritable
- Depressed

#### Behaviour disorders

- Fearful
- Hyperactivity, restlessness
- Inter-cat aggression
- Urination/defecation indoors

#### Psychosomatic disorders

- Psychogenic alopecia
- Sterile cystitis
- Indigestion – anorexia, vomiting, diarrhoea, colitis, constipation
- IBS, IBD
- Epilepsy

#### Convalescence

- Cage rest after post-trauma, post-surgery
- Kept inside

#### Musculoskeletal

- Pain
- Muscle spasm
- Post-surgery

#### Stressful Events

- Moving house
- New animal in neighbourhood
- New animal in home
- Visit to vet
- Cat shows

### Environmental enrichment

#### Dosage Guidelines

Therapeutic oral dose range for cats*:

- 0.02-0.30g/kg/day (divided BID or TID)
- up to 1 pinch/kg/day (divided BID or TID)

Higher dosing appropriate for severe, acute conditions. Lower dosage appropriate to prevent symptoms or as environmental enrichment.

[^based on animal studies, human data and clinical veterinary experience.]

#### Herb Quality

*Happy Cat™* contains medical grade herb material, and is certified free of pesticides, heavy metals, aflatoxins.

#### Safety and Toxicity

*Happy Cat™* contains one ingredient only – *Valeriana officinalis*. Valerian may generally be considered a safe herb for felines. However, herbs with anxiolytic and sedative actions should ideally be used for a limited duration. Underlying reasons for disease should always be sought and changes made wherever and whenever possible.

- **Contraindications** - None known.
- **Herb-drug interactions** - No significant herb/drug interactions with *Valeriana officinalis* have been reported in humans or animals. Caution is, nevertheless, advised when using in combination with barbiturates, anaesthetics, and other central nervous system depressants.
- **Pregnancy** - No evidence of increased foetal damage in animal or human studies.
- **Lactation** – *Valeriana officinalis* is regarded as safe in breastfeeding in humans. The safety of Valerian during lactation in other animals has not been established, therefore administer with caution at these times.
- **Overdose** - Doses up to 20 times the recommended therapeutic dose have caused only mild symptoms. Very large doses may cause bradycardia and arrhythmias, and decrease intestinal motility. The recommended first aid is gastric lavage, charcoal powder, and sodium sulfate.